



**NEWSLETTER OF THE LONDON CHAPTER,
ONTARIO ARCHAEOLOGICAL SOCIETY**

Grosvenor Lodge, 1017 Western Road, London, ON. N6G 1G5
(519) 645-2844



Spring, 1995

95-3

LONDON CHAPTER ANNUAL PICNIC

Saturday, September 23, 1995, 2PM

Longwoods Road Conservation Area

Hwy. 2, west of Delaware

We're still managing to keep this tradition alive, although a few more warm bodies this year would be appreciated! This year's event is co-sponsored with the Thames Valley Trails Association, so bring out your hiking boots! We'd like to be cost-aware this year, so we're planning the picnic to be pot luck - please call an Executive member to co-ordinate what to bring. See you there.

September Speaker Night: We start off the fall speaker season with a local flair. Chris Andreae, of Historica Research, will provide us with an overview of the industrial archaeology of London and environs. Meeting time is Thursday, September 14th, 7:30 PM, at Grosvenor Lodge.

Chapter Executive

ANNUAL RATES

Individual.....	\$15.00
Family.....	\$18.00
Institutional.....	\$21.00
Subscriber.....	\$17.00

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EXECUTIVE REPORT

Hi, remember us? It is certainly amazing how time will fly when you're pre-occupied! Last we spoke it was sometime in March! Ok, Ok, sorry for the delay in getting these **KEWA's** out to you. We had an article shortage originally, and then when we had articles, it was already early summer, so we figured we had plenty of time to get these newsletters out, so.....well, you know the rest of that story!

While things may have been quiet these last few months for the Chapter (the usual operations at Grosvenor Lodge, City of London Heritage Committee, etc.), it has been a much busier time in the Province. It was pointed out that, with the recent election, we are now dealing with the eighth "heritage" Minister since the Province began to revise the Heritage Act. Maybe eight's the charm? Readers should keep a lookout for any new developments as they are announced (in case you actually would like to see the Heritage Act re-vamped) in *Arch Notes* and this newsletter.

SOCIAL REPORT

So you didn't get your **KEWA** until early September and now you think you have the perfect excuse for having missed the Chapter's **ANNUAL SUMMER PICNIC**, right? Wrong! This year's picnic is scheduled for Saturday, September 23rd, and will be held out at the Longwoods Road Conservation Authority (about 30 minutes west of London along Highway 2 - 10 minutes west of Delaware). This year's event is co-sponsored with the Thames Valley Trails Association, so, naturally, there will be a hike as part of the day's events, along with the usual assortment of games and gossip. It's pot-luck this year, so bring your own weenies! Oh yes, no alcoholic beverages allowed on Conservation Authority land...sorry!

Pat reports that the second annual Martha Blackburn Walkathon will be held on October 1st, to raise money for Grosvenor Lodge. 50% of the money raised by Chapter participants will go to the...um....I can't read my writing, uh, should that be "the money goes to Pat," or "the money goes to the Chapter?" I don't know, better check with Pat!!!

Pat also announces that there will be a raffle at the September Speaker Night, to help raise a little money for the Chapter. The prize will be an afghan our fearless president has made, so get yer wallets out September 14th.

EDITOR'S REPORT

This month we feature more fall out from the February Speaker Night on the Moche of Peru. The Chapter's resident expert on that part of the world, Andrew Nelson from up at UWO, has provided us with an interesting summary of Peru prehistory, as well as reviewing the significance of the findings Christopher Donnan first described to the Chapter last February. Yes, we know this topic may not strictly fit within the confines of southwestern Ontario archaeology, but it's nice for a change once in awhile. Also, if I hear anyone complain, they'll be immediately sequestered (note the "OJ" language and how it has crept even into our world!), and required to produce an article for an upcoming issue of **KEWA**!

Andrew J. Nelson

INTRODUCTION

Last February, the London archaeological community was treated to a lecture by Dr. C.B. Donnan, Professor of Anthropology and Director of the Fowler Museum of Cultural History, UCLA, entitled "Royal Tombs of the Moche: Recent Excavations on the North Coast of Peru". This presentation, cosponsored by the London Chapter of the Ontario Archaeological Society and the Department of Anthropology, University of Western Ontario, focussed on the magnificent site of Sipan, a royal Moche tomb comparable to that of Egypt's King Tutankhamen. The objective of this paper is to provide an overview of Peruvian cultural history in order to place the royal tombs of Sipan in a more complete archaeological context. It is hoped that this will make it possible to see beyond the glitter of the gold and silver artifacts, to more fully appreciate the enormous importance of this discovery.

PHYSICAL SETTING

It is impossible to understand the course of cultural development in Peru without a consideration of the geography of this South American country. The country as it is recognized today is bounded on the west by the Pacific ocean, to the north by Ecuador, to the south by Chile and to the east by Bolivia and Brazil (see Figure 1). The three major ecological zones are the very dry coastal desert; the *altiplano*, a series of relatively flat highland basins suspended between the eastern and western ranges of the Andes Mountains; and the *montaña*, the tropical forest on the eastern slopes of the mountains (Lanning 1967).

The *montaña* is a dense rain forest, not generally suitable for intensive agricultural exploitation. Native tribes of the forest subsist now, and probably did so in the past, using a combination of slash and burn horticulture and hunting/gathering of the forest resources (Lanning 1967). The preservation of archaeological remains in such an environment is poor and the archaeological record is not well known. However, several large prehistoric settlements have been identified in this region such as Gran Pajaten. A rich modern mythology surrounds this region, spurring many expeditions over the years to attempt to find "lost cities" (Dyott 1929).

The archaeological record of human occupation of the *altiplano* is much richer, including the earliest evidence of the colonization of Peru. The highlands average approximately 3000 m in altitude, with occupied areas ranging as high as 5000m (Lanning 1967). The vegetation consists mostly of low grasses and scrub bushes. Subsistence economies have run the range from hunting/gathering to intensive agricultural exploitation. Agricultural practices of the past and present include extensive terracing for large scale production of potatoes and maize. The total area under cultivation immediately preceding European contact actually exceeded that currently in use (Lumbreras 1974).

The coast is an extremely dry desert, punctuated by rivers flowing out of the highlands. Land within

reach of irrigation is lush and productive, while that beyond the reach of water is desiccated and barren. The arid conditions are due to the presence of the Peru or Humboldt Current, which runs north to south along the coast line. This current is an up-welling of cold Antarctic water abundant in nutrients, which support rich anchovy fish stocks. The presence of the cold water cools onshore air currents, causing them to drop their moisture before they make landfall. Once the breezes cross the coast, they are warmed by the sand, and take up whatever moisture is present. The moisture is dropped on the rising slopes of the Andes as the air cools again, well out of reach of most of the coast (Lanning 1967).

The lack of moisture means that preservation of archaeological material can be extremely good, including textiles and natural mummification. Rain is extremely rare along the coast, where most structures were, and indeed still are built of adobe. Generally, the rains that do fall accompany an *El Niño* event. This phenomenon has meteorological effects felt as far away as North America and Africa, but is best known for its effect on the Peru Current, which results in rain falling on the coast, bringing catastrophic floods (Ramage 1986).

The coast also bears the scars of geological uplift, a product of the subduction of the Pacific continental plate beneath the South American plate. Thus, what were once ancient shore lines are now the tops of high cliffs. Interpretation of coastal occupation is greatly complicated by this process.

CULTURAL HISTORY OVERVIEW

The cultural history of Peru revolves around its geography and technology. Peruvian prehistory can be divided into a series of stages: a Preceramic Period, an Initial Period and then a series of *Horizons* (Early, Middle and Late) indicating the presence of cultures capable of unifying this diverse landscape, and *Intermediate Periods* (Early and Late) of local isolation (Rowe 1962; Lanning 1967). Travel is not easy from river valley to river valley along the coast, nor from coast to highland, nor from basin to basin in the highlands. Thus, the processes which led to the unification typical of the *Horizons* must have been extremely powerful.

The Horizon/Intermediate Period system was originally developed by John Rowe (Rowe 1962), with the periods based on the cultural sequence in the Ica Valley. A similar system is advocated by Lumbreras (1974) which differs in the early periods (Lithic, Archaic and Formative), but simply offers different names for the later periods (Regional Developmental [or Fluorescent Period, Donnan 1992], Huari Empire, Regional States and Inca Empire). Other systems are in use which emphasize other features, such as a cultural evolutionary sequence: cult - kingdom - empire (Morris & Hagen 1993). However, such a system lacks generalizability and imposes a framework which gives the appearance of regular progressive change on a process which proceeded in fits and starts.

A consideration of the geography, distribution of archaeological sites, and the way in which the culture areas mapped out during the intermediate periods has led to the division of prehistoric Peru into six major regions: the North, Central and South Coasts and Highlands (see Figure 2).



Figure 1: Modern Peru.

The Preceramic Period

The Preceramic Period includes everything from the first occupation of Peru to the systematic use of pottery. Like the rest of the New World, there is debate as to when the first occupation took place. Other South American countries have produced sound evidence indicating occupation by about 10,000 BC, although there are many suggestions of earlier dates. Suffice to say that a pre-Clovis presence in South America has not been convincingly demonstrated (Rick 1987; Lynch 1990; but see Gruhn & Bryan 1991; Dillehay & Collins 1991).

Preceramic subsistence in the highlands appears to have concentrated on hunting of deer and camelids, while subsistence on the coast concentrated on the gathering of marine resources and indigenous flora. One of the early traditions identified on the North Coast is called the Paijan. This tradition is characterized by long, slender, bifacial points made from quartz or rhyolite (Malpass 1983), and probably represents a hunting and littoral gathering economy (Morris & Hagen 1993).

There is good evidence for domestication of several plant and animal species by about 5000 BC. These include gourds, quinoa and tubers as well as llamas, alpacas and guinea pigs (Lanning 1967; Lathrap 1977; Lumbreras 1974). The latter part of the Preceramic Period (2500 to 1800 BC) is referred to as the Cotton Preceramic after the abundant exploitation of this local plant for textiles (Morris & Hagen 1993). By this time beans, corn, chili peppers, fruit and the dog were also added to the list of domesticates (Lumbreras 1974).

The Initial Period

Relatively simple ceramics appeared in Ecuador and Columbia as early as 3000 BC (Lumbreras 1974), but it was not until about 1800 BC that ceramics were common in Peru and throughout South America (Donnan 1992). At one time it was believed that Jomon fishermen, from a neolithic culture in Japan, were responsible for the introduction of ceramics to South America (Meggers & Evans 1966). However, this idea has since been discounted (e.g. Pearson 1968; McEwan & Dickson 1978); ceramic technology clearly developed *in situ*. The Initial Period also saw the development of the first intensive irrigation agriculture, bringing a shift from marine based to farming based economies along the coast. Settlements increased in size, including the development of some monumental ceremonial centres (Lanning 1967; Pozorski & Pozorski 1994).

The Early Horizon

The first of the stages which appears to be characterized by a uniform expression of culture throughout Peru is called the Early Horizon (Rowe 1962; Lanning 1967; see Figure 3). This horizon began about 900 BC and is focussed on the site of Chavin de Huantar in the Central Highlands. Chavin influence elsewhere is seen in stone carvings, textiles, pottery and metal work in the form of interweaving figures, often combining elements of humans, felines, snakes and other animals (see Figure 4). Evidence of the influence of Chavin art has been found as far north as Ecuador and well down on the south Coast, as far as Nazca (Lanning 1967). The Chavin architectural influence can be

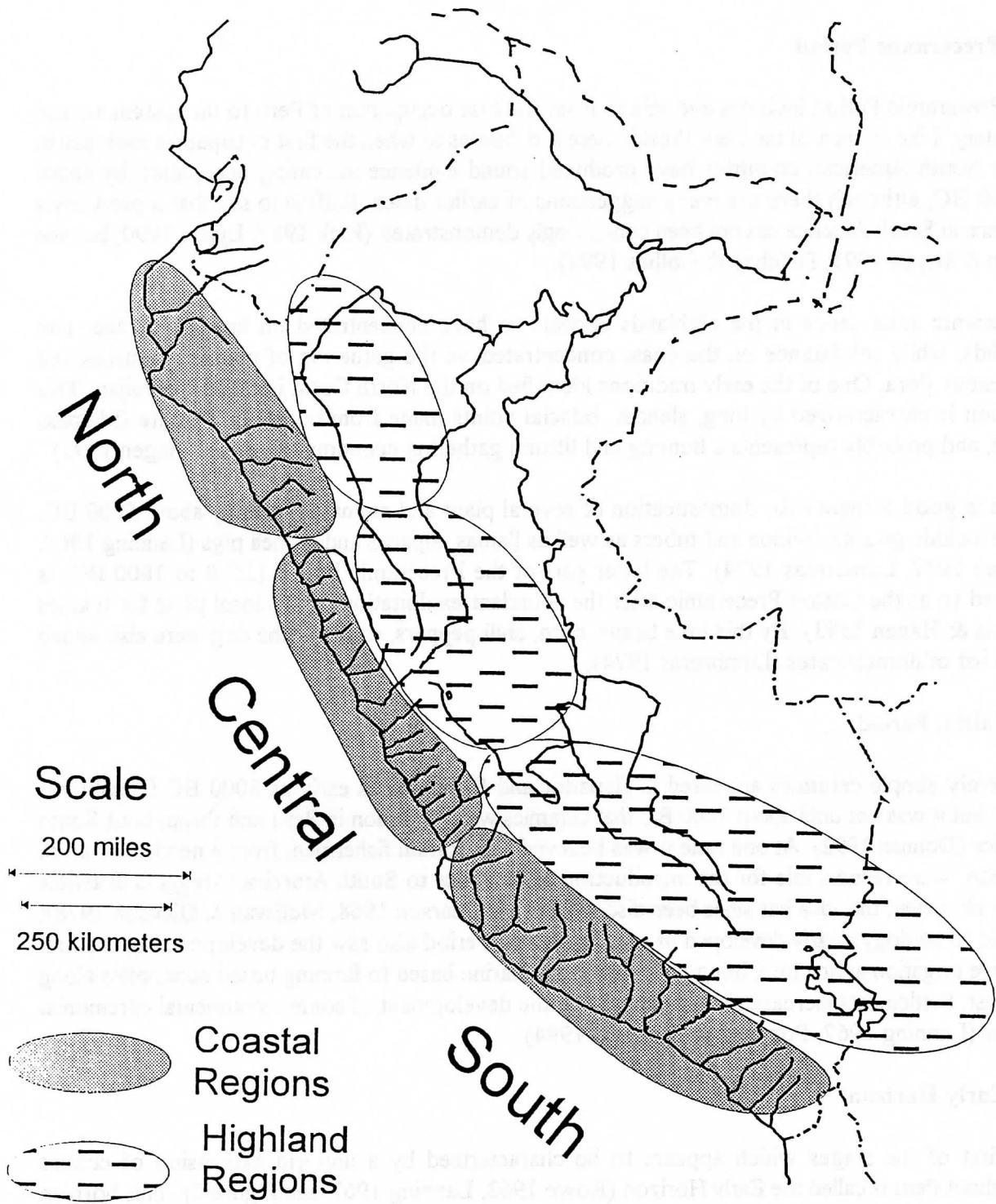


Figure 2: Major Cultural/Geographic Regions in Prehistoric Peru.

seen in numerous ceremonial centres which incorporated U-shaped mounds with central focal patios, platforms, and other structures often decorated by elaborate friezes, much like the main site of Chavin de Huantar (Lanning 1967).

Chavin iconography strongly reflects the prominent role of shamanistic beliefs, perhaps including the influence of hallucinogens on the artists (Chiswell 1985; Cordy-Collins 1977). Thus, it would appear that this civilization should not be characterized as a secular empire, but as a religion or cult. There is some question whether the Chavin civilization even represents a true state level organization (Pozorski & Pozorski 1987). The spread of the artistic canons accompanying the cult do not appear to have been accompanied by militaristic expansion. In fact, Chavin styles often meld with local styles suggesting that the new iconography was not imposed by force on local polities. Furthermore, beyond the cult centres, there were no large secular administrative or military centres (Lanning 1967). This has led some scholars to suggest that this temporal span should be renamed the *Early Period*, rather than the *Early Horizon* (Pozorski & Pozorski 1987). Indeed, another system of naming chronological periods combines the Initial Period and the Early Horizon together as a phase called the Formative Period (e.g. Donnan 1992). However, the iconographic influence of Chavin was quite widespread, and there was clearly a complex, underlying socio-political structure which fostered that spread, built the cult centres and supported the specialist priesthood in a hierarchical theocratic system (Lumbreras 1974; Morris & Hagen 1993).

The Early Horizon is particularly important for the appearance of significant technological advances. Chavin artisans often worked in copper and gold, utilizing techniques such as cold hammering, annealing, embossing, repoussé, welding and soldering (Lanning 1967). Fine elaborate textiles also characterize this period, in particular those from the site of Paracas, an Early Horizon religious centre on the South Coast of Peru which incorporated many aspects of the Chavin cult into its local style, but maintained a unique identity (Lanning 1967). The majority of Paracas textiles recovered have come from burial contexts (Lumbreras 1974). Individuals were prepared in a manner similar to Egyptian mummies: the internal organs were removed and the corpse was dried in the hot desert sun. Finally the corpse was wrapped in layer upon layer of colourful cotton textiles (Morris & Hagen 1993). Many of the crania from these burials were found to have been artificially deformed and/or trephined (Stewart 1943; Lumbreras 1974).

Toward the end of the Early Horizon local styles gained ascendancy and the Chavin influence began to disappear. The site of Chavin was abandoned by about 200 BC, the date generally used to mark the end of the Early Horizon. The decline of the unifying iconography and the rise in importance of local expression may well have accompanied military upheaval. The earliest identified fortress, the site of Chanquillo in the Casma Valley on the North Coast, dates to about 340 BC (Lanning 1967).

The Early Intermediate Period

Following the end of the Early Horizon, individual local polities gained control of geographic regions such as highland basins and coastal river valleys (see Figure 5). These polities are each characterized by their own set of iconographic canons. Thus, this is an "intermediate period" following the Early

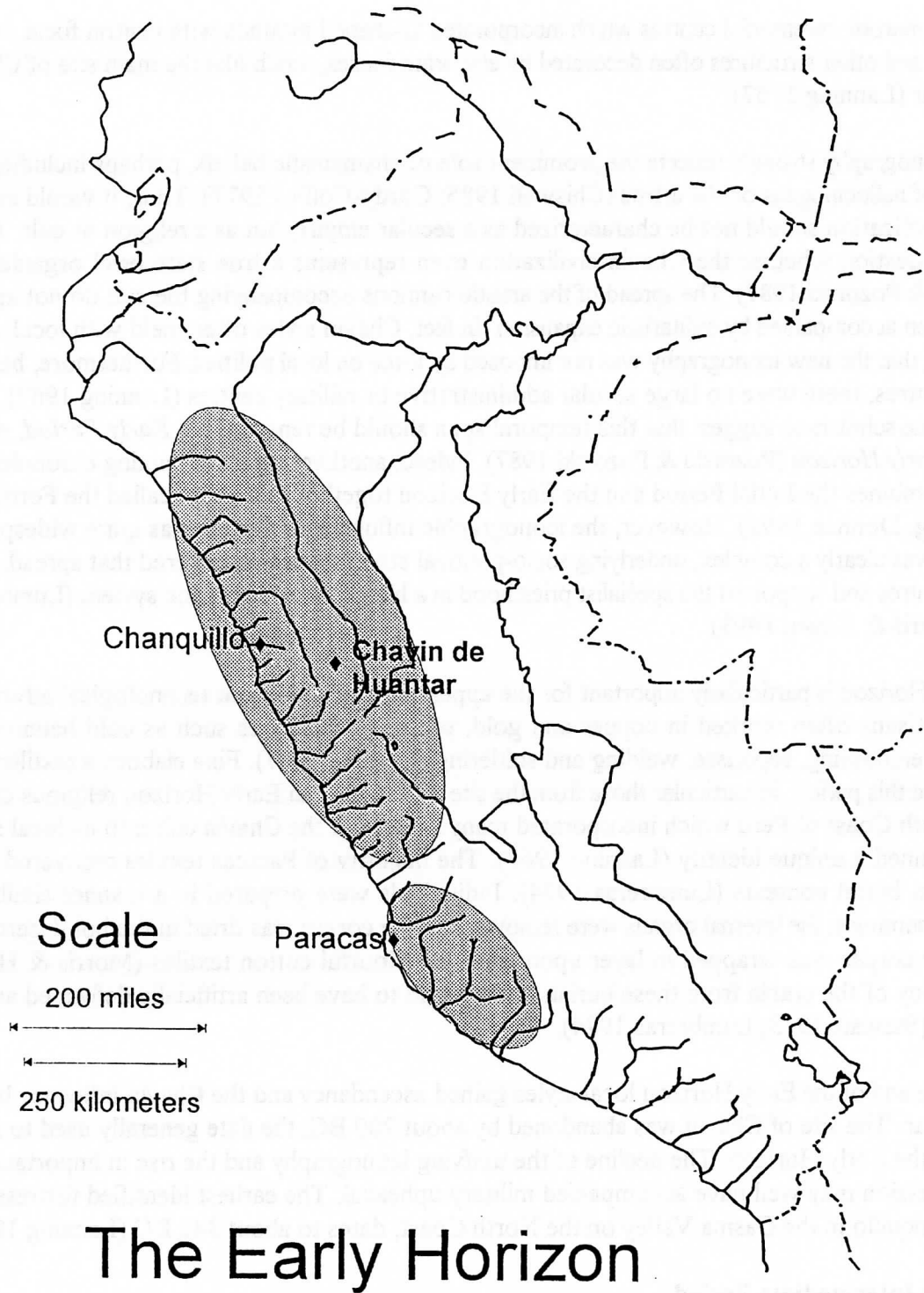
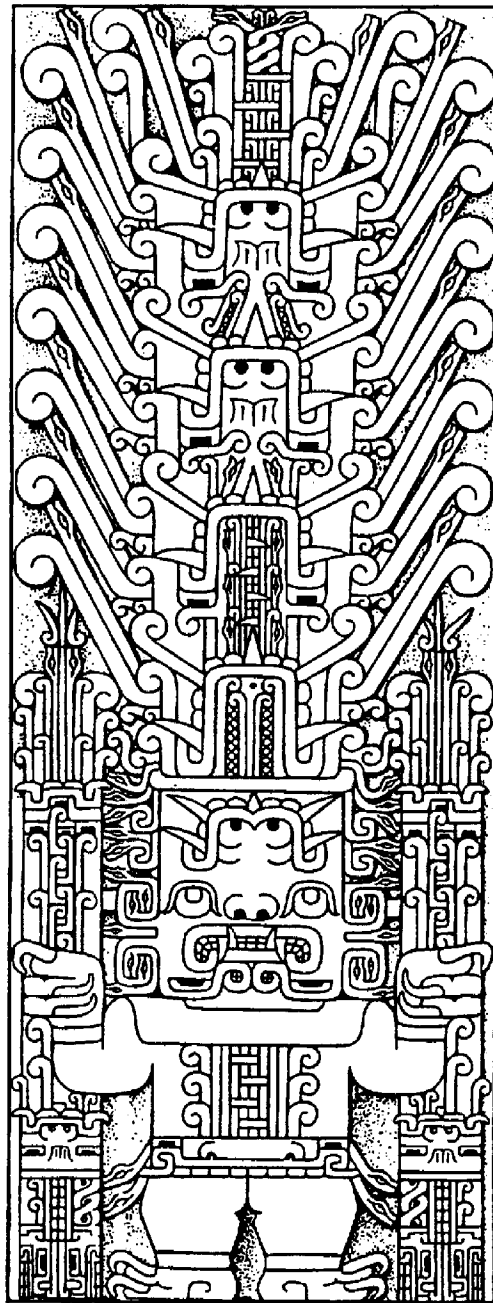


Figure 3: The Early Horizon. This horizon is dominated by the Chavin Cult.



Scale 75cm

Figure 4: The Stela Raimondi (after Morris & Hagen 1993: 57). This large stone monolith is carved in low relief. It was originally found at the site of Chavin de Huantar.

Horizon; hence the Early Intermediate Period (EIP) (Rowe 1962). Several of these EIP polities gained control of large areas, and maintained that control by means of secular administrative structures backed by military force. Thus, these polities represent the first true state-level civilizations in the Andes. These states probably arose in response, among other things, to population pressure, warfare, and the need to cooperate in order to control the valuable commodity of water (Price 1987).

Several large highland sites are known from the Early Intermediate Period. To the north, Cajamarca dominated a highland basin. This culture is best known for its white clay (kaolin) ceramics, decorated with cursive and often whimsical figures (Lumbreras 1974). Just to the south of Cajamarca lies the large hilltop settlement of Markahuamachuco (Topic & Topic 1982). This site clearly dominated the surrounding countryside and would have required a considerable investment of labour to construct, and could have harboured a sizable population. South of the Markahuamachuco area lies the Recuay region, which dominated the central highlands (Lumbreras 1974; Donnan 1992).

The two best studied Early Intermediate Period civilizations come from the Peruvian coast: the Moche from the North Coast and the Nazca from the South. The Moche civilization developed from other local EIP cultures and is considered to begin around 100 AD, after the construction of the Pyramids at the site of Moche (Rowe 1962; Lanning 1967). These pyramids, or *huacas*, are monumental adobe constructions. The larger, *Huaca del Sol* (Pyramid of the Sun) would have measured some 342m by 160m and would have stood over 40m tall, and was built from more than 143 million individual adobe bricks (Morris & Hagen 1993). The smaller, *Huaca de la Luna* (Pyramid of the Moon) measures some 95m by 85m by 20m tall from more than 50 million adobes (Morris & Hagen 1993). Other massive, labour intensive Moche undertakings included large administrative centres and extensive canal systems (Ortloff 1988).

The Moche clearly fit the description of a state level society. There were monumental corporate labour projects, militaristic activities, a large scale centralized secular administration, as well as extensive irrigation projects for agricultural intensification (Lanning 1967; Lumbreras 1974). The stratification of the society has long been recognized (Lumbreras 1974), but the huge difference between the upper echelons and impoverished peasants was not fully appreciated until the discovery of the first intact tomb of a warrior priest. This is the tomb that was discovered at Sipan - more about this later.

The Nazca are best known for their spectacular drawings on the Nazca pampa (plain). These huge drawings are stylized representations of animals such as spiders, hummingbirds and fish, as well as geometric shapes which extend for hundreds of meters across the pampa and are best appreciated from a low flying aircraft. The Nazca Lines were constructed by clearing the surface rocks along the paths of the drawings, exposing the lighter soil below (Lanning 1967). They have been preserved for the intervening two thousand years by the unique climatological regime described earlier - rain, which would obliterate the drawings, rarely falls on the Nazca pampa. The figures and shapes represented in these drawings are part of a rich artistic tradition which includes elaborate polychrome pottery and fine textiles (Lumbreras 1974). The capital of the Nazca region was Cahuachi (Lumbreras 1974).

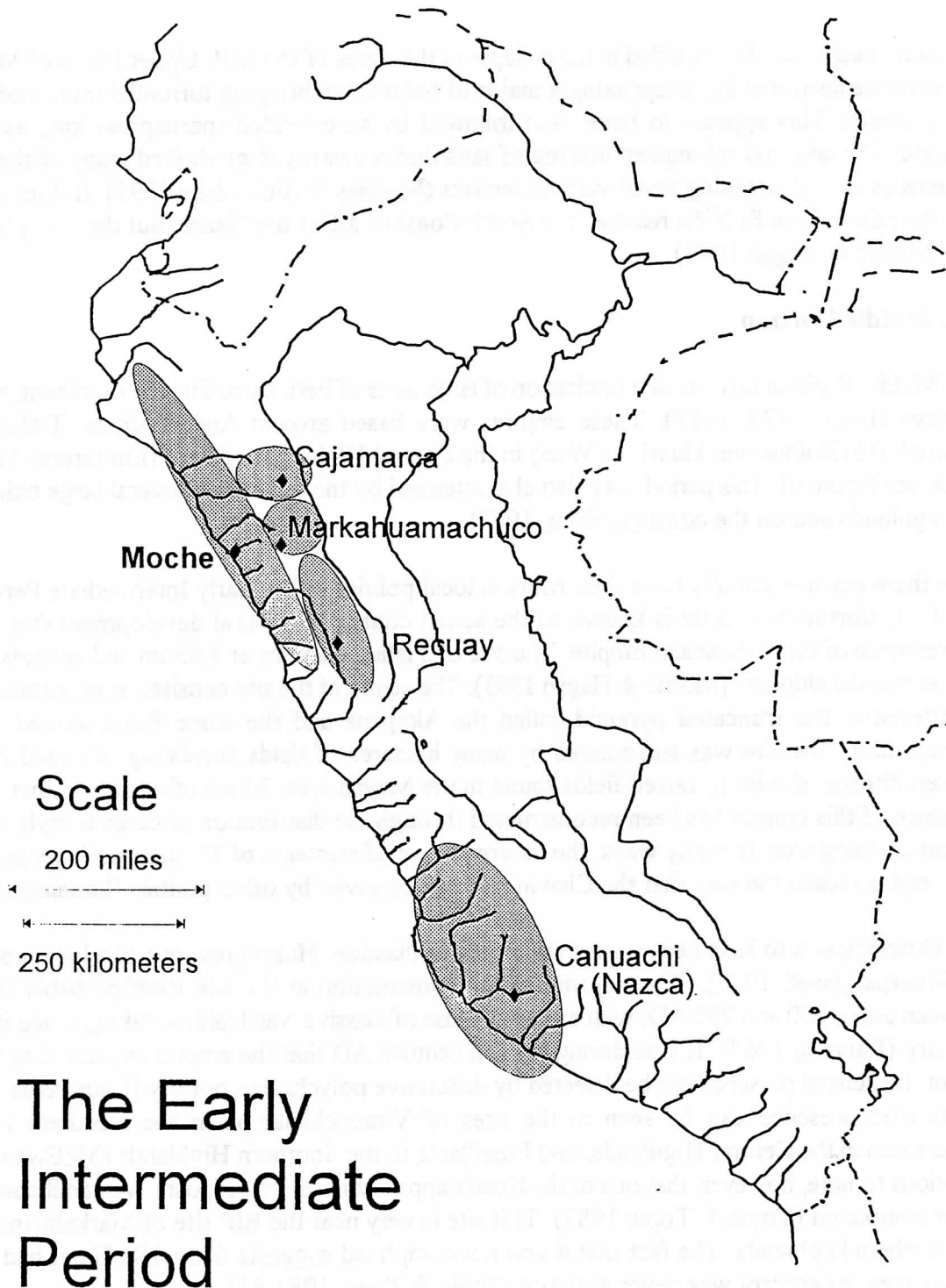


Figure 5: The Early Intermediate Period. This period saw several local polities emerge both in the highlands and on the coast.

It is quite likely that climate aided in the collapse of the states of the EIP. Upper levels of Moche sites demonstrate deep soaking, bespeaking a major El Niño event bringing torrential rains, lasting many, many weeks. This appears to have been followed by an extended (perhaps as long as 30 years) drought. The rain, and subsequent drifting of sand dunes destroyed or choked many of the irrigation systems as well as wreaking havoc with settlements (Moseley & Richardson 1992). It does not appear that the rains of the El Niño reached the South Coast to affect the Nazca, but the drought certainly did (Morris & Hagen 1993).

The Middle Horizon

The Middle Horizon saw the first unification of large parts of Peru by politically dominant, militaristic empires (Isbell 1978, 1987). These empires were based around Andean cities: Tiahuanaco (or Tiwanaku) in Bolivia and Huari (or Wari) in the Central Highlands of Peru (Lumbreras 1974; Isbell 1983; see Figure 6). This period was also characterized by the growth of several large cities, both in the highlands and on the coast (Lanning 1967).

Both these empires actually have their roots in local polities of the Early Intermediate Period (Isbell 1983). Unfortunately, little is known of the actual course of cultural development that led to the florescence of the Tiahuanaco Empire. The site of Tiahuanaco lies at 3,850m and spreads some 4.5 km² across the altiplano (Morris & Hagen 1993). The centre of the site consists of monumental public architecture: the truncated pyramid called the Akapana and the stone faced mound called the Pumapunku. The site was surrounded by many hectares of fields consisting of raised ridges and sunken ditches, similar to raised fields found in the Mayan area. Much of what is known about the influence of this empire has been reconstructed through the distribution of ceramic style changes in the surrounding area. In many ways, the incorporation of elements of Tiahuanaco iconography with local styles recalls the way that the Chavin cult was received by other polities (Lanning 1967).

The Huari appears to have been a more militaristic civilization. Huari grew out of a local polity called the Huarpa (Isbell 1987). The majority of the construction at the site itself probably took place between about 600 and 700 AD, with a second phase of massive wall building taking place in the next century (Lanning 1967). It was during the 8th century AD that the empire expanded to its largest extent. Its general presence can be detected by distinctive polychrome pottery (Lumbreras 1974). Its militaristic presence can be seen in the sites of Viracochapampa in the Northern Highlands, Jincamocco in the Central Highlands, and Piquillacta in the Southern Highlands (McEwan 1979). It is curious to note, however, that one of the Huari's apparent northern outposts, Viracochapampa, was never completed (Topic & Topic 1983). This site is very near the EIP site of Markahuamachuco in the Northern Highlands. The fact that it was not completed suggests that while Huari had influence in that area, its control was never absolute (Topic & Topic 1983-85).

The influence of these highland empires on coastal civilizations appears to have been indirect. The site of Pachacamac, which had its beginnings as a ceremonial centre in the Central Coast during the Early Intermediate Period, became a major city during the Middle Horizon (Lanning 1967). It was characterized by a unique iconographic expression incorporating elements of the Tiahuanaco style

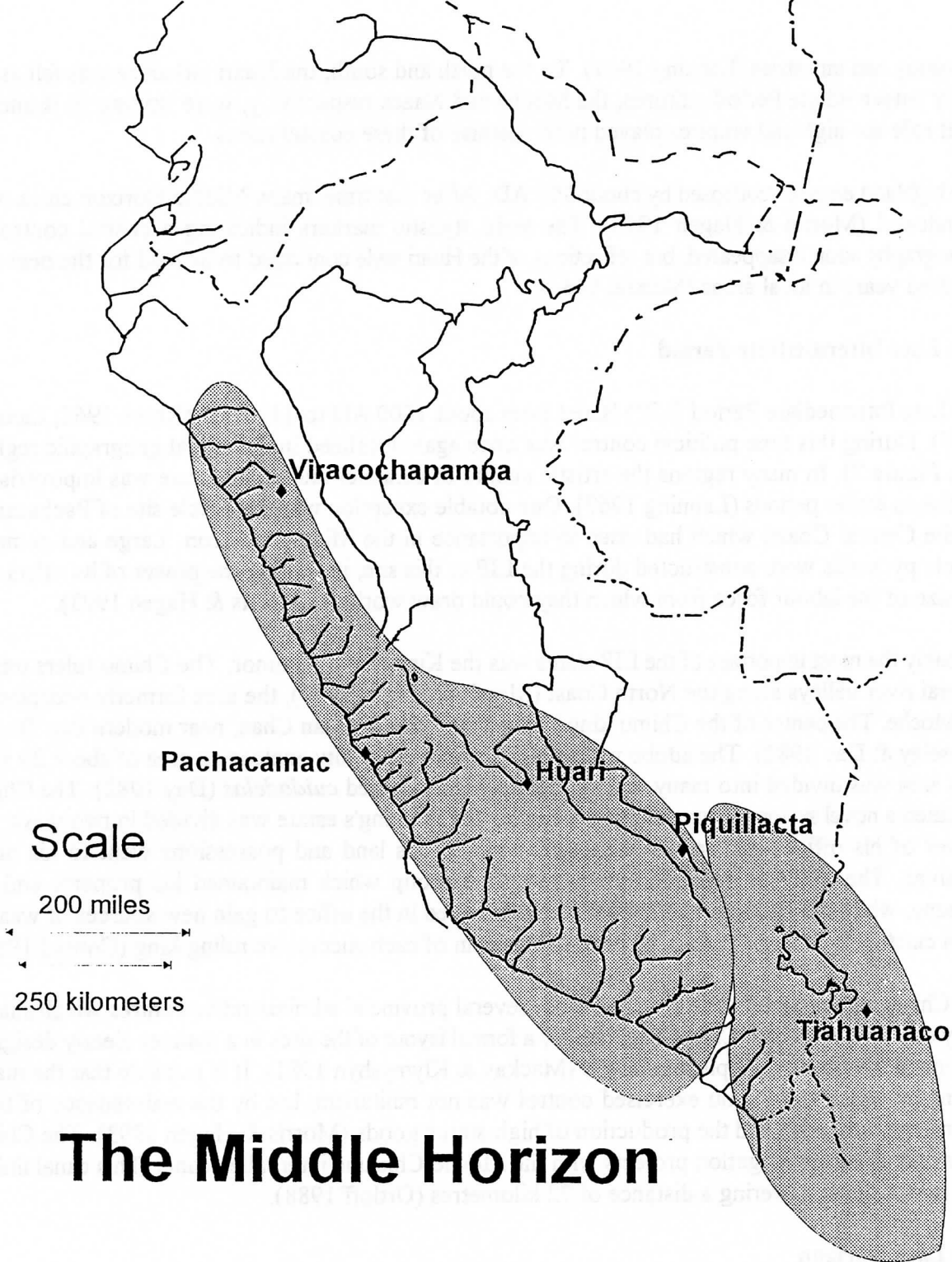


Figure 6: The Middle Horizon. This horizon is dominated by the Tiahuanaco and Huari States. Huari influence was felt over much of Peru.

in pottery and tapestries (Lanning 1967). To the north and south, the Huari influence was felt as the Early Intermediate Period cultures, the Moche and Nazca respectively, were waning. It is unclear what role the highland empires played in the demise of these coastal states.

The highland empires collapsed by about 800 AD. After that time, many Middle Horizon cities were abandoned (Morris & Hagen 1993). The main stylistic markers indicating a central control of iconography soon disappeared, but reflections of the Huari style continued to be held for the next two hundred years in local areas (Menzel 1964).

The Late Intermediate Period

The Late Intermediate Period (LIP) lasted from about 1000 AD to 1476 AD (Rowe 1962; Lanning 1967). During this time political control was once again localized in individual geographic regions (see Figure 7). In many regions the artistic quality of ceramics and architecture was impoverished relative to earlier periods (Lanning 1967). One notable exception was the oracle site of Pachacamac on the Central Coast, which had risen in importance in the Middle Horizon. Large and complex temple pyramids were constructed during the LIP at this site, indicating the power of its rulers and the size of the labour force from which they could draw workers (Morris & Hagen 1993).

Probably the most important of the LIP states was the Kingdom of Chimor. The Chimu rulers united several river valleys along the North Coast (Morris & Hagen 1993), the area formerly occupied by the Moche. The centre of the Chimu kingdom was the city of Chan Chan, near modern day Trujillo (Moseley & Day 1982). The adobe walls that surrounded the city enclose an area of about 20 km². This area was divided into many rectangular enclosures called *cuidadelas* (Day 1982). The Chimu instituted a novel system of royal inheritance, whereby the king's estate was divided in two ways: the power of his office went to his successor, while all his land and possessions went to his other relatives. The other relatives formed a corporate group which maintained his property and his mummy, while the successor utilized the power vested in the office to gain new sources of wealth. Each *cuidadela* is thought to have been the domain of each successive ruling king (Conrad 1982).

The Chimu administered their kingdom from several provincial administrative centres which shared many characteristics with Chan Chan: notably a formal layout of the sites in a manner clearly designed to control the flow of people and goods (Mackay & Klymyshyn 1981). It is possible that the major means by which the Chimu exercised control was not militarism, but by the maintenance of tight control over irrigation and the production of high-status goods (Morris & Hagen 1993). The Chimu surpassed all earlier irrigation projects with the Moche-Chicama intervalley canal. This canal linked two river valleys, covering a distance of 72 kilometres (Ortloff 1988).

The Late Horizon

One of the small south highland states which appeared during the Late Intermediate Period was that of the Incas. They began to expand, conquering neighbouring states in the mid 15th century AD, and had control over much of the Peruvian highlands and coast, Ecuador and parts of Chile, Bolivia and

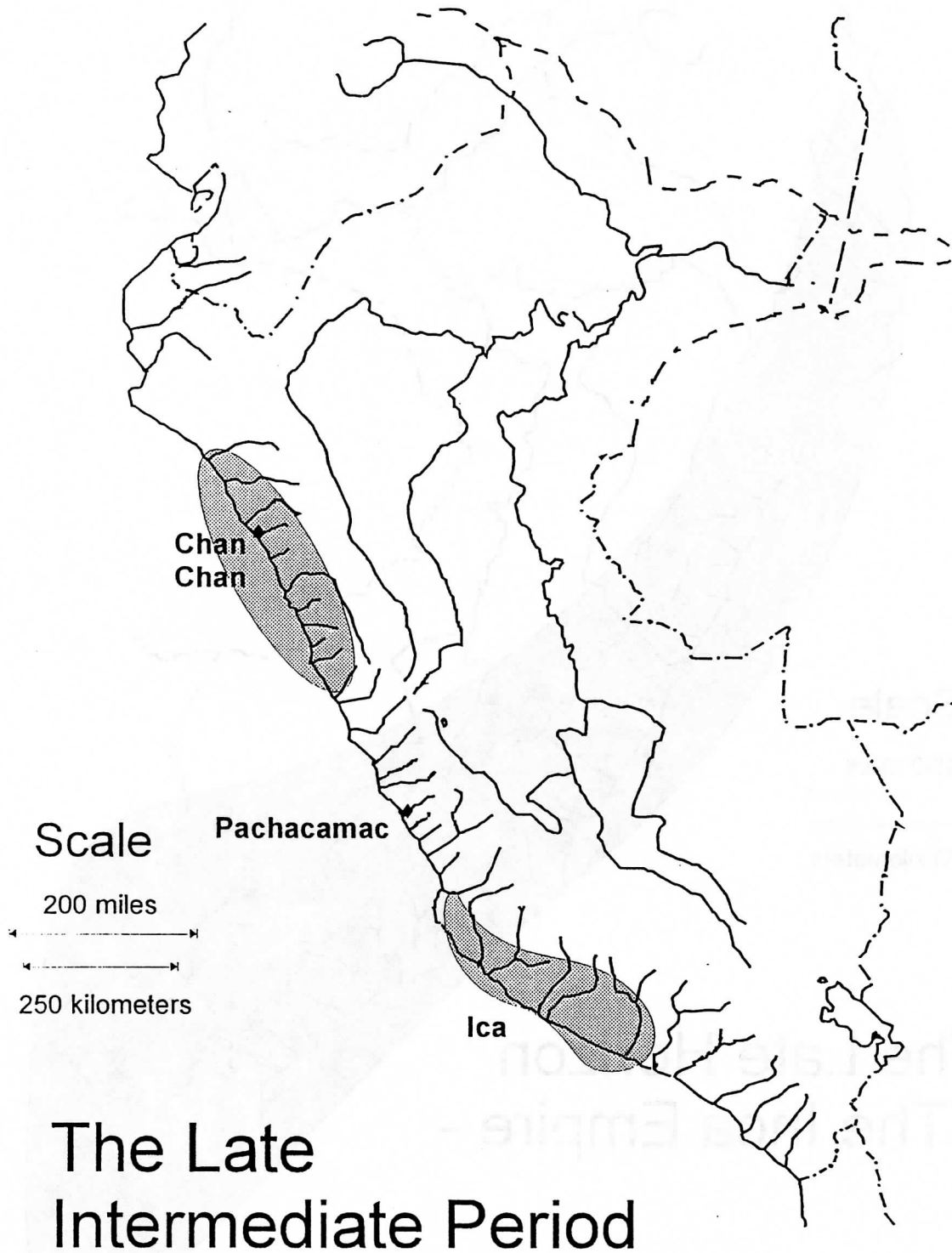
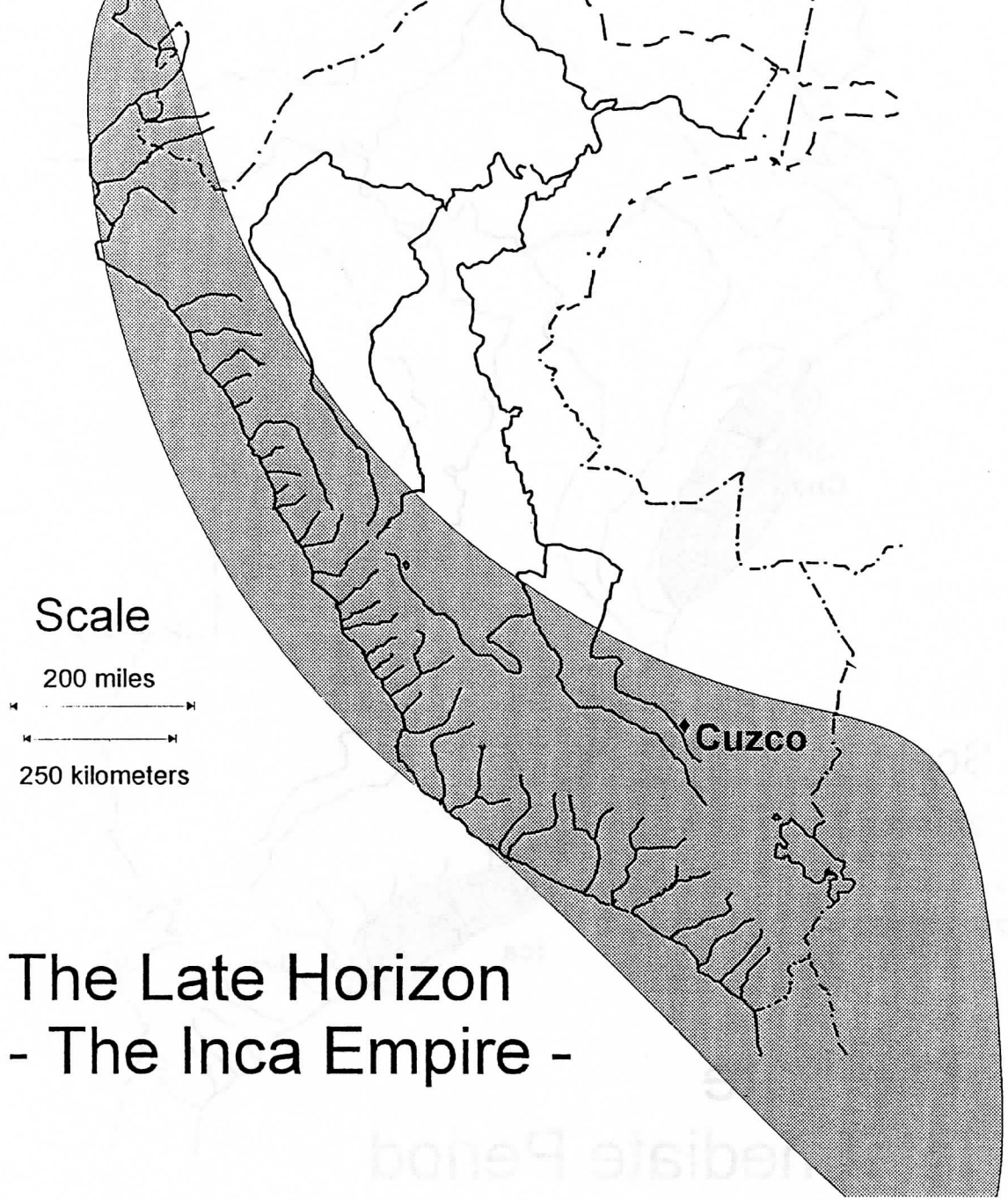


Figure 7: The Late Intermediate Period. This period followed the break down of the Middle Horizon States and saw several polities exert influence over small stretches of the coast and/or highlands.



The Late Horizon - The Inca Empire -

Figure 8: The Late Horizon - The Inca Empire. The Inca Empire united most of what is now modern Peru, and stretched as far north as Ecuador, and south into Chile and southeast into Bolivia and Argentina.

Argentina by the 1470's (Lumbreras 1974; see Figure 8). The date of 1476 AD, which marks the beginning of the Late Horizon, marks the Inca conquest of the Ica Valley (Rowe 1962).

Much of the drive behind this rapid expansion has been attributed to the adoption of the Chimú split-inheritance system, which forced each new Inca ruler to conquer more territory to enhance his own wealth (Conrad 1982). They maintained tight control over the empire by means of military might, and by the wholesale moving of entire communities when troubles arose. The state was able to mobilize huge numbers of labourers to undertake monumental construction projects, such as an extensive road system and the fortress of Saqsaywaman in the hills about the capital of Cuzco. This site is famous for the enormous stones which are fit together with incredible precision (Protzen 1986). The state and its workers were maintained by intensive agricultural exploitation of hillsides by terracing and the desert by irrigation (Lanning 1967).

However, in 1527, the Inca ruler Huayna Capac died before naming a successor. A civil war ensued, fought by two of his sons, Huascar and Atahualpa (Lanning 1967). This war devastated the citizens of the empire, who were also battling the effects of measles and small pox epidemics, which had originated from the first European contacts with American Natives on the other side of the continent. Atahualpa won the civil war in 1532, but had no time to consolidate his control of the empire before the arrival of Francisco Pizarro and his Spanish Conquistadors. The rest, is history...

THE MOCHE IN DETAIL

The Moche was one of the Early Intermediate Period (or Fluorescent Period) cultures (see Figures 5 and 9). At its height, the Moche Kingdom stretched along almost 600km of the desert North Coast, linking fourteen river valleys, from the Piura River in the north, to the Huarmey in the south (Alva & Donnan 1993). It is possible that the Moche Kingdom may have in fact been made up of two separate but allied polities; a northern one and a southern one, divided by a 40km wide stretch of desert called the Pampa de Paján (Morris & Hagen 1993).

Much of what we know about the Moche culture is derived from the careful study of the rich artistic legacy that they left in such diverse media as ceramics, textiles, metal and wood. In particular, the Moche period is exemplified by the stirrup spout bottle (Donnan 1992; see Figure 10). It is unfortunate that much of this material was not excavated under controlled conditions. Rather, an active and lucrative art market and museum trade has long encouraged the poor coastal fishermen and farmers to systematically loot their local archaeological sites. There is an active and ongoing debate over the use of prehistoric material from looted contexts (e.g. Alexander 1990; Donnan 1991, ms; Wylie 1994) which has yet to be resolved. However, there is no question that our understanding of this prehistoric people would be much poorer if scholars did not have access to this material.

There has also been a great deal of controlled archaeological excavation of Moche sites, beginning with those of Max Uhle in 1899 at the site of Moche (Alva & Donnan 1993). It is these scientific excavations which have provided the critical contextual information necessary to more fully understand the complexity and richness of the Moche culture.

Important Moche Sites

Major North Coast River Valleys

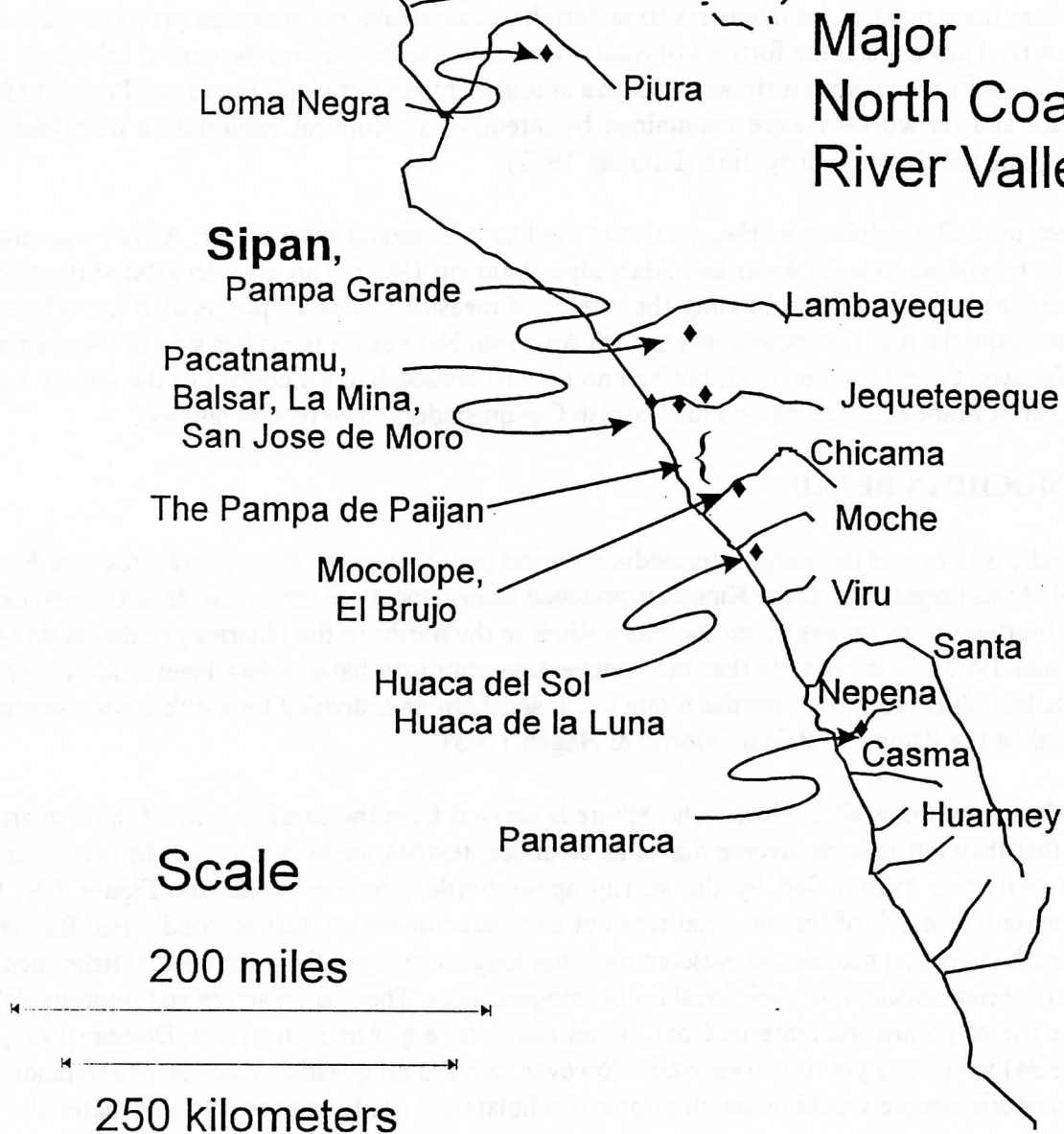


Figure 9: The North Coast of the Moche. This figure shows the major river valleys united by the Moche State and the important Moche sites discussed in the text.

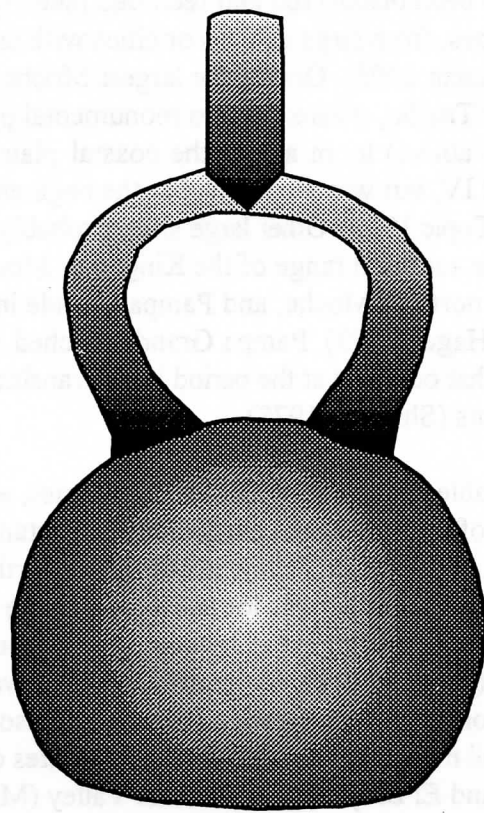


Figure 10: A Moche Stirrup-Spout Bottle. This particular example demonstrates the neck form typical of Moche phase IV (after Donnan 1992: 62).

Moche Chronology

The Moche Kingdom developed out of earlier Early Horizon cultures on the North Coast in about 100 AD. It ended early in the Middle Horizon, around 800 AD (Alva & Donnan 1993). There are also clear indications that there were several phases within the Moche time period, suggesting shifting political control, land use, and militaristic expansion and retreat. The Moche time period is typically divided into five phases, characterized on the basis of distinct forms of the neck of the stirrup spout vessels (Donnan 1978) - Moche I being the earliest phase and Moche V the latest. It appears that the Moche Empire experienced a crisis at the end of Moche IV, when its main site was abandoned (Topic 1982) and its sphere of influence greatly contracted (Donnan 1973). Moche V demonstrates considerable influence from the Huari Empire, and dates to the beginning of the Middle Horizon (Donnan 1978).

Moche Sites

Many individual Moche sites have been discovered and recorded (see Figure 9). It is clear that there was a hierarchy of settlement types, from large centres or cities with large populations, to villages, to small farmsteads (Alva & Donnan 1993). One of the largest Moche sites is that of the pyramids at Moche, near the modern city of Trujillo, where the two monumental pyramids, *Huaca del Sol* and *Huaca de la Luna* (referred to above) loom above the coastal plain. This site appears to have flourished during Moche III and IV, but was abandoned at the beginning of Moche V times, when the capital was moved up valley (Topic 1982). Other large sites, probably representing administrative centres, include Pañamarca in the southern range of the Kingdom, Mocollope, Pacatnamu and San Jose de Moro in the two valleys north of Moche, and Pampa Grande in the northern portion of the range (Shimada 1978; Morris & Hagen 1993). Pampa Grande reached its zenith in Moche V times, reflecting the shift in populations that occurred at the period IV/V transition. This large city may have held as many as 10,000 inhabitants (Shimada 1978).

Several other Moche sites are notable in light of particular discoveries, either made by tomb robbers or by archaeologists. A handful of these sites are particularly important to unravelling the story of Sipan. One of these, Loma Negra, in the Piura Valley, is one of the northernmost sites in the Moche sphere; a rich cache of ceramics and fine metals was looted from this site in the early 1960's (Donnan 1978, 1990). Elsewhere, at Balsar and La Mina in the Jequetepeque Valley, north of Moche, wealthy tombs were located by looters (Donnan 1990; Kirkpatrick 1992; Alva & Donnan 1993). A mass burial of mutilated Moche warriors was discovered in Pacatnamu, also in the Jequetepeque Valley (Verano 1986). Polychromatic wall murals are also known from the sites of Pañamarca in the Nepeña Valley (Alva & Donnan 1993), and El Brujo in the Chicama Valley (Morris & Hagen 1993).

Understanding the Moche Culture

The Moche had no recognizable writing system, and they existed too long before the Spanish conquest for ethnographic information to shed light on this ancient culture. Thus, the reconstruction of their way of life must rely on the interpretation of material remains.

Fortunately, their rich artistic tradition contains a wealth of information. The Moche ceramics frequently incorporated three-dimensional models of people, vegetables, animals and architecture. The representations of people included realistic portraits, erotic activities, prisoners, diseased individuals, and other depictions of both men and women. Human figures were often melded with animal elements, creating anthropomorphized owls, monkeys and so on (Donnan 1978; Morris & Hagen 1993). The list could go on and on, including similar figures and scenes represented in metal, wood and textiles. However, detailed analysis undertaken by Dr. Donnan at the Moche Archives in the Fowler Museum of Cultural History, UCLA (e.g. Donnan 1978) has revealed important regularities, canons and themes which unite this diverse collection of symbols and media.

The artistic canons include rules governing, among other things, the scales at which figures were depicted, the use of perspective, depth of field, and how figures were posed and what they were doing

(Donnan 1978). Recurrent themes which have been identified revolve around what appear to be particular rituals, with figures and activities appearing repeatedly, represented in several different media.

One such theme is the *burial theme* (Donnan & McClelland 1979). The burial theme was identified on a series of Moche V stirrup spout bottles with "fineline" drawings. Fineline drawings occur throughout the Moche period, but become more common and more complex in the latter phases (Donnan 1978). These representations clearly illustrate a complex ritual surrounding the burial of what must be a high status individual. There are a series of recognizable figures, two named Iguana and Wrinkle Face, who can be recognized by particular sets of icons, and four distinct activities. The activities include the actual burial, an assembly of a group of anthropomorphized and human individuals (including Iguana and Wrinkle Face), the transfer of conch shells between individuals, and human sacrifice (with the deed done by Iguana with Wrinkle Face near by; see Donnan & McClelland 1978).

A second theme, which has been recognized in fineline drawings, metal work, wall murals, ceramics and textiles, is the *presentation theme* (Donnan 1978; see Figure 11). Again, identifiable figures performing particular activities can be recognized. In this case the main theme appears to be the sacrifice of prisoners. Their throats are cut and the blood collected in goblets which are then passed from one figure to the next and ultimately presented to the dominant figure in the scene. The prisoners are captured warriors, who are stripped of their weapons (which are tied into a bundle) and then bound at their hands and feet. The best representation of this scene is rendered in fineline drawing on a stirrup spout bottle (Donnan 1978, 1988). On the basis of this representation the figures have been identified with letters: Figure A, B, C and so on. Figure D is recognized by his clothing and headdress, particularly an animal face emblem on the front of the headdress. Figure C, a female, (Donnan & Castillo 1992) is recognized by a long shirt, headdress with tassels and long sash-like objects hanging from her shoulders. Figure B is part bird and part human and wears a conical helmet and headdress. Figure A wears a conical helmet, a crescent shaped headdress, a nose piece, and a large back flap (Donnan 1978). Figure A is ultimately the individual who drinks the goblet of blood.

Much of the Moche iconography can be accounted for by a few themes. Donnan's (1978) analysis of the symbols and figures from this thematic perspective suggests that the majority of Moche artistic expression functioned in the religious rather than the secular realm of Moche life. When these themes were first recognized and described, it was unclear whether they represented real events, or stylized representations of mythical events (Donnan & McClelland 1978). This puzzle was not solved until the excavation of Sipan. However, it was clear that these themes indicated the existence of social stratification in terms of the differentiation of activities in religious ceremonies and the potential for large differentials in the amount of effort invested in particular burials.

Social stratification is also clearly indicated by the range of burial treatments that could be observed in the archaeological record. In all, more than 350 individual Moche burials have been excavated by archaeologists (Alva & Donnan 1993), and countless more by looters (Donnan 1995). This data suggests that burial practices changed slightly from phase to phase (Donnan & Mackey 1978), but

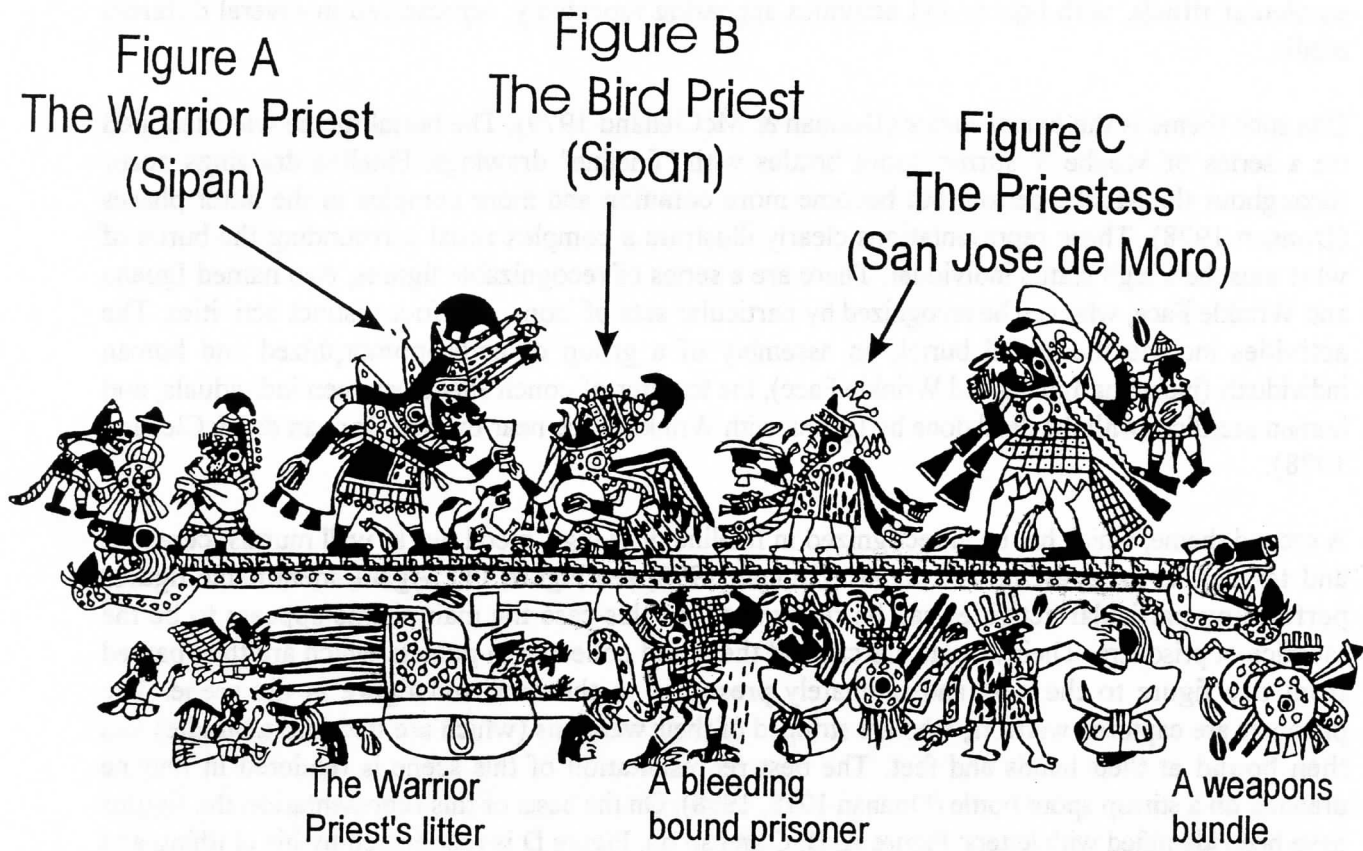


Figure 11: The Moche Presentation Theme and Sacrifice Ceremony (after Donnan and Castillo 1992: 40-42; original line art by Donnan and McClelland). This theme was described by Donnan (1978) on the basis of regularities in iconographic representations of the figures in different scenes and on different media. Not until 1987 was it realized that the figures represented actual individuals who fulfilled ritual roles in Moche society.

several levels of funerary investment are constant throughout the Moche period. The lowest level can be recognized by individuals who were buried with little in the way of grave goods, with the graves occasionally cut into refuse heaps. The next level may be occupied by individuals with more grave goods and/or offerings, such as ceramics and llama bones (Donnan & Mackay 1978). Some individuals had considerable effort invested on their behalf in the construction of adobe chambers, having chambers cut into existing adobe structures or in the cutting of chambers into the desert floor (Ubbelohde-Doering 1966; Donnan & Mackay 1978). This latter group was presumably composed of high status individuals, who were often accompanied by fine ceramics and metal objects. A series of such burials were excavated in a cemetery between the two pyramids at Moche. These were thought to have been especially high status individuals (Topic 1982).

The Discovery

The discoveries made at the site of Sipan have dramatically expanded and altered our view of Moche life and culture. This is particularly true regarding the stratification of Moche society.

The modern village of Sipan lies in the Lambayeque Valley of the North Coast of Peru. Near the village is a site that contains three adobe huacas, referred to collectively as Huaca Rajada. The three huacas range in size from very large to small, with the smallest mound measuring some 70m by 50m and standing 10m tall (Alva 1988). This site has long been known to archaeologists, and was thought to date to the Chimu period on the basis of the building materials and ceramics found on the surface (Kirkpatrick 1992). The adobe huacas display the effects of many years of wind erosion, occasional El Niño rains and numerous probes by looters.

In 1987, looters were again at work, tunnelling into the smallest of the three huacas hoping to find some artifacts to sell in order to augment their meagre incomes. On February 6, 1987 they found more than they had bargained for. The exact course of events that followed is not known, but eleven gunny sacks full of ceramics and gold, silver, and copper artifacts were recovered. Once away from the site, the looters fell into an argument about the division of the spoils, leaving one dissatisfied with his share. This man called the local police who raided the home of some of the looters. This first raid yielded one of the sacks of artifacts, and a second raid yielded more; but it also led to the shooting death of one of the looters (account from Kirkpatrick 1992).

The material the authorities did manage to recover was breathtaking. The loot included more than thirty metal pieces demonstrating impeccable artistry and workmanship. Artifacts included small beads shaped like peanuts, crescent-shaped nose ornaments, a modeled gold head with inlaid cobalt eyes and a ceremonial rattle bearing images of a supernatural deity. This obviously did not come from an ordinary cache of pots (Kirkpatrick 1992). The only other lot of such artifacts known from a single site was the cache from Loma Negra (Donnan 1988), a site which was essentially destroyed by the looters who found it. Archaeologists strongly suspected that Loma Negra was the site of a royal tomb, but it was hard to imagine, even in a well stratified society, that such a huge volume of wealth would be buried with a single individual. It was also possible that the site represented a royal repository, a temple or a shrine, or perhaps something else (Alva & Donnan 1993). Thus, it was critical that more be learned of the circumstances surrounding the discovery made at Sipan.

Local archaeologist Walter Alva was contacted by the police, and with their cooperation immediately took control of the site from the many locals who had flocked to undertake their own excavations. He soon organized a salvage archaeological project, to better understand exactly what the looters had found. From this project grew the full scale, scientific excavation of the site which continues under Dr. Alva's direction to this day. The history of the project itself is an interesting story, with funding initially from the National Geographic Foundation by way of Chris Donnan and UCLA, and has continued using other sources. One local funding source was a pasta manufacturer; at one point the

workers on the project were being paid part of their wages in pasta! (account from Kirkpatrick 1992; Donnan pers. comm.)

Subsequent Finds

The first task of the archaeological project was to learn everything possible about the huaca. Alva recognized that the material recovered by the looters dated to the Moche period rather than the Chimú. Thus, the history of the site was clearly more complicated than had been previously believed (Alva & Donnan 1993). Detailed analysis of the looters' tunnels demonstrated that the small huacas had been built in six separate phases, beginning in about 100 AD and ending by about 300 AD (Alva 1988). The form of the chamber the robbers had encountered was impossible to accurately recreate, beyond recognizing that it had been large, and had been roofed by wooden beams (Alva & Donnan 1993). Careful sifting through the piles of dirt left by the looters and the local villagers, who had subsequently worked over the area, yielded several artifacts that had been overlooked. One of these included a metre long copper sceptre, which bore a model of a small building at one end (Alva 1988).

The focus of the project then shifted to the top of the huaca, where it was hoped that detailed survey and excavation would help to reveal more construction details. This process soon revealed the remains of a second chamber, which had been looted many years ago. This was recognized on the basis of preserved fragments of roofing beams and parts of walls. This chamber measured some 2.9m long, 1.8m wide and 1.25m deep (Alva & Donnan 1993). Further excavation of this chamber produced a cache of 1,137 ceramic vessels. Clearly the potential of this site was not yet exhausted.

Careful clearing and examination of the top surface of the huaca revealed two large rectangular areas where it appeared that the original adobes had been removed, and then replaced with others. Excavation began on one of these rectangles in July of 1987, and quickly unveiled the remains of more wooden beams. The next layer contained more than one thousand five hundred ceramic vessels, piles of llama bones and fragments of copper. Then came a burial; a skeleton squeezed in a small niche cut into the bottom of the chamber. Excavation of the other rectangle led to the definition of a second chamber, also containing a single burial. This time the individual was clearly a warrior. However, this man was buried without his feet. The supposition was that these two individuals represented sacrifices, with the second acting as a guardian (Kirkpatrick 1993).

Further probing in the second chamber revealed more wooden beams, suggesting that there was a smaller chamber within the larger one. Digging proceeded until they encountered the remains of wooden planks, held together by copper straps. At last, archaeologists were looking down on the intact remains of the tomb of a Moche King (Kirkpatrick 1993).

This small chamber contained more than a central coffin. Many ceramic vessels were found, a dog, more llama bones and several people who appeared to have been sacrificed to accompany their king. Young women were buried at the head and foot of the coffin, and men on either side (Alva 1988).

The contents of the coffin proved to be the most remarkable aspect of the burial. The skeleton was

that of a male individual, about 166cm in height; tall for a Moche male (Alva & Donnan 1993). He was buried with a truly unbelievable wealth of treasures. The trove included, among other things, a solid gold ingot, 5cm in diameter and 1cm thick, several delicately strung beaded "bibs" called pectorals, a feather headdress, necklaces made from gold and silver peanut beads like those recovered from the looters, sea shells imported from Ecuador, heraldic banners of textile and copper, gold nose ornaments, ear spools of gold with turquoise inlay, a large crescent shaped gold headdress, several solid gold wedge shaped "back flaps" and a gold sceptre with a trapezoidal head set on a silver handle (Alva 1988; Alva & Donnan 1993). The full range of the Moche hierarchy was now clearer than it ever had been before; here was an individual buried with the kingdom's crown jewels.

A careful analysis of the objects included in the coffin revealed clues as to the actual identity of the man in the tomb. Recalling the patterning of iconographic themes, and the fact that certain individuals could be recognized by their accoutrements, Chris Donnan was able to identify the man in the coffin as Figure A from the presentation theme (Alva 1988; Alva & Donnan 1983). The keys were the last items in the artifact list above: the nose ornaments, ear spools, crescent shaped headdress, back flaps and the sceptre. These are all elements associated with Figure A. This figure is also referred to as the Warrior Priest.

As excavations continued, two more intact chamber tombs were found. Tomb II, excavated in 1988, also contained a footless guardian, a central coffin and several sacrificed retainers. The coffin contained another male skeleton, and a similar array of gold, silver, copper and other artifacts. However, the quantity of goods was not equivalent to that of Tomb I, and several of the important elements were missing. However, the discovery of this individual's headdress, a gilded copper arrangement of metal feathers and a central three dimensional sculpture of an owl suggested that this was the tomb of Figure B from the presentation theme (Alva & Donnan 1993). Figure B is also referred to as the Bird Priest.

Both of these tombs date to around 250 to 300 AD. This is essentially contemporaneous with the cache found at the site of Loma Negra and with the polychrome mural of the presentation theme from the site of Pañamarca (Alva & Donnan 1993).

Work began on Tomb III in August of 1989 (Kirkpatrick 1993). This tomb proved to be somewhat different from the others; it was much simpler, though no less rich. The tomb was not placed in a formal chamber, rather in a simple pit dug into the adobe. The central occupant of the tomb was not placed in a wooden coffin, but in a sedge mat with cotton shrouds. Lying on top of the bundle was a strand of gold beads, composed of anthropomorphized spiders poised on a web. The workmanship of these beads is exquisite; the strands of the web are fine sheet gold rolled into hollow wires, the anthropomorphic head was delicately beaten in low relief and each bead contained three gold spheres that rattled when moved. Other features were more familiar: heraldic banners, nose ornaments, inlaid ear spools, back flaps, beaded pectorals and sceptres. The ensemble was quite similar to that of the Warrior Priest in Tomb I, but lacked the crescent shaped headdress and the distinctive trapezoidal headed sceptre (Alva & Donnan 1993). However, the tomb was also deeper in the pyramid, sealed by some of the layers of reconstruction. This meant that it was somewhat earlier than the two

chambered tombs of the Warrior Priest and the Bird Priest, perhaps dating to around 100 AD (Alva 1990). Thus, perhaps Tomb III contained an earlier incarnation of the Warrior Priest, who filled a position in a ceremony that evolved over the centuries. The occupant of Tomb III is referred to simply as the "Old Lord of Sipan" (Alva 1990; Alva & Donnan 1993).

Relevance of the Sipan Discovery

Work at the site is ongoing, and the volume of priceless artifacts that this one small, seemingly insignificant huaca has produced is staggering. However, the importance of the site goes far beyond the aesthetics and the inherent attraction of gold. The site represents the first time that royal Moche tombs have been excavated intact, providing the opportunity to study the artifacts in the context in which they were laid. This extraordinary opportunity has revealed many important new insights into the Moche world.

Probably the most important information provided by the excavations at Sipan is how stratified the Moche society actually was (Alva & Donnan 1993). The sheer wealth of material entombed with these individuals, compared to the scraps of cotton used to wrap the poorest fishermen, bespeaks huge differences in access to material wealth and to political power. Perhaps even more remarkable was the possibility, indicated by two similar tombs (Tombs I and III), separated by time but possibly containing a figure fulfilling the same ritual role, that this extravagant funerary rite was consummated once each generation. Creating and recreating the burial goods would keep skilled artisans busy on a constant basis, further requiring considerable support from the State as well as an elaborate infrastructure of raw material providers. The cult of death surrounding these elite individuals could have been the centre of a thriving industry.

Despite the wide disparity in material wealth represented in the various levels of Moche burials, elements of a common funerary tradition can be found. The rich Sipan burials represent elaborations on that tradition, which can also be detected in the simple cotton wrapping and spartan grave goods of the poorest peasant (Donnan 1995).

The fact that this material was excavated under controlled conditions by trained scientists, meant that the artifacts could be considered as part of an integrated ensemble, rather than as isolated works of art on a museum shelf. This allowed the identification of particular figures, recognizable by their trademark set of features as represented in Moche art. Thus, the themes illustrated on the fineline bottles, murals and other media did not represent mythical events, but real figures who probably performed real roles in real ceremonies, such as burial and human sacrifice (Alva & Donnan 1993).

In particular, the actual existence of the human sacrifice ceremony is attested to by other discoveries at Sipan. On the southern part of the huaca, a chamber was discovered that contained not the remains of an elite individual, but numerous offerings of amputated hands and feet (Alva & Donnan 1993). These discoveries were reminiscent of the grizzly mass burial from Pacatnamu referred to above. At this site, the remains of fourteen warrior-aged males were found in three layers. The remains showed that the young men had been ritually tortured and mutilated before they were thrown into the pit, and

left for vultures to have their way (Verano 1986).

The discovery of the objects together also allowed subtle associations and arrangements to be observed. For example, the peanut shaped beads came in two "flavours": gold and silver. When recovered from the looters' gunny sacks, the archaeologists did not know how they had been hung. Were they strung on separate strands? Did they alternate along the same strands? The strands *in situ* in Tomb I attested to a right/left-gold/silver duality: the gold beads were strung on the wearer's right side, and the silver on his left (Alva & Donnan 1993). The individual also had a gold ingot in his right hand, and a silver one in his left. Many other similar examples of this arrangement were found in all three excavated tombs (Alva 1990). This duality likely corresponds to the sun/moon duality that pervades the ethnohistoric record of the Inca, and can be traced well back in the archaeological record of the Andes (Morris & Hagen 1993).

Sipan and Other New Discoveries

In 1988, while work was going on at Sipan, looters were at work farther south, in the Jequetepeque River valley. It appears that an individual looter had discovered a rich Moche tomb at a site called La Mina. He had "mined" it steadily for several months, gradually selling the artifacts. However, by the time word reached Walter Alva and the authorities, other looters had also discovered the site, thoroughly destroying it (Alva & Donnan 1993; Kirkpatrick 1993). However, the study of the material which reached the art market revealed that this site had been as rich as Sipan. Furthermore, many of the artifacts were similar in form and iconography, and probably dated to about 300 AD; the same date as Tombs I and II from Sipan.

Combined with the renewed consideration of the Loma Negra material, it is clear that the practice of burying the Moche royalty with vast amounts of wealth was not isolated to one or two valleys. Rather this practice appears to have occurred throughout the entire Moche Kingdom. It is possible that each river valley had its own ceremonial centre, with its own cast of sacred characters, and its own set of burials (Alva & Donnan 1993). This makes the expenditure of wealth in each generation even more remarkable!

In 1991, a cooperative project between a Peruvian archaeologist, Luis Jaime Castillo, and Chris Donnan led to the excavation of another site in the Jequetepeque Valley. The site was San Jose de Moro, long recognized as a major ceremonial centre (Donnan & Castillo 1992). Moro turned out to have some elite class burials of its own. The richest of these contained a woman, accompanied by sacrificed attendants, llamas as well as shells and ceramic and metal artifacts. The metal artifacts included a large headdress of a silver-copper alloy, ear spools and other jewelry. The ceramics included a shallow basin containing a number of small cups and a large goblet. These features were enough to identify this individual as Figure C from the presentation theme. The presence of large amounts of silver artifacts and the lack of gold pieces adds the dimension of sex to the gold/silver duality identified at Sipan.

This discovery further enhances the vitalization of the iconographic representations, by associating

the depicted roles with particular individuals. However, it is also important in a temporal sense. The burial at San Jose de Moro took place sometime after 550 AD, many years after those at Sipan (Donnan & Castillo 1992). Despite a considerable passage of time, it is clear that the characters in the ceremony remained stable through time and space. Nonetheless, this must be contrasted with the possibility that the roles may have evolved from the time of Tomb III to the time of Tomb I at Sipan.

CONCLUSION

Thus, the interpretation of the site of Sipan has opened many new windows on the Moche world. The Moche Kingdom was populous and prosperous, and presided over the North Coast of Peru for some 700 years. The Moche people were capable of producing exquisitely beautiful works of art, many requiring sophisticated knowledge of metal working. Furthermore, they were capable of doing so in large quantities on a repeated basis. However, they were also capable of seemingly incredible cruelty; torturing prisoners and drinking their blood in ceremonies presided over by priests who paraded around in ostentatious regalia. However ostentatious their leaders may have seemed, it is clear that the Moche had a well developed sense of pageantry, of ceremony and of dedication to what we call the arts, and to fine craftsmanship.

ACKNOWLEDGEMENTS

I must first acknowledge Drs. John & Theresa Topic for stimulating my initial interest in Peru and to Dr. Chris Donnan, for furthering that interest and for supporting all my endeavours. I would like to express my appreciation to Angelique Mohring, Dr. Carol Mackay and Drs. John & Theresa Topic for assistance with research for this paper. Angelique Mohring and Chris Nelson provided important editorial advice.

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